

WILSON
Appl. No. 10/735,870
November 8, 2005

AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include changes to Figs. 1-8. These sheets, which include Figs. 1-8, replace the original sheets including Figs. 1-8. The changes are in line with the examiner's requests.

Attachment: Replacement Sheet(s)
Annotated Sheet Showing Changes

REMARKS/ARGUMENTS

With the foregoing amendments, claims 1-13 are presented for favorable consideration. Claim 1 has been amended as supported by the specification and drawings, for example, specification page 2, lines 15-16, page 4, line 35 through page 7, line 9, and Figures 2, 3, 5, 6 and 8. No new matter has been added by the claim amendments.

In response to the drawing objections, applicant submits herewith replacement sheets of all Figures 1-8 in line with the helpful comments of the examiner.

Claims 1-13 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Huang (U.S. Patent No. 6,814,159) in view of York (U.S. Patent No. 1,361,130). Applicant respectfully traverses the rejection and submits that the rejection does not set forth a prima facie case of obviousness.

At the outset, applicant notes that Huang does not disclose or suggest the invention claimed in claim 1 (the sole independent claim upon which all dependent claims are based). Huang discloses and teaches a certain type of impact tool driver. This sort of impact tool driver is the same type of antiquated impact implement discussed in the introductory portion of the subject application. In the Huang device, the pin 30 passes through V-shaped camming holes and is received in diametrically opposed apertures 215 extending through a hollow cylindrical holding member 20. To ensure that the pin 30 is not dislodged, a collar (not identified by a numeral) shown in the exploded view of the Huang device is located between the spring 40 and the cylindrical holding member 20. In fact, the collar is a split collar and is located in the groove provided on the holding member 20. Thus, the Huang pin is not available for any other purpose other than to be held captive and to be able to move within the V-shaped camming hold 13. In

addition, the hollow holding member 20 has a formation 22 at one end adapted to receive a socket 23.

In contrast to the teachings of Huang, the applicant's claimed device comprises a socket drive 17 having an end 18 for receiving a socket (not shown in the drawings). The socket drive 17 is provided with opposed heart shaped apertures 31 and 32. The pin or follower 20 extends through the apertures 31 and 32 and through the housing 14 and projects diametrically beyond the housing on both sides thereof. This is quite the reverse of the arrangement shown and taught in Huang.

It is significant to note in the applicant's claimed invention that the pivot pin 20 provides an axis along which the handle 10 may be pivoted relative to the housing 14. This readily allows for the impact wrench to be adjusted to the configuration illustrated in Figure 1 where the housing 14 extends axially relative to the handle 10. The housing may be adjusted so that it extends at right angles to the handle 10 as shown in Figure 2 and likewise, although not illustrated, this pivotal arrangement allows the housing 14 to be rotated through 180° from the position shown in Figure 2 so that the socket drive is uppermost. These three configurations allow the impact wrench of the subject invention to be used as a speed brace when in the Figure 1 position and to loosen or tighten a fastener when in the other two positions. This novel and unique operation is possible because of the presence of the yolk illustrated in Figure 1 and by having the follower or pin 20 located between one end of the housing and a free end of the socket drive. Huang does not disclose or suggest the claimed arrangement.

In addition, claim 1 requires that the socket drive 17 has first and second camming surfaces. The Huang device does not have the claimed surfaces, but, instead, requires diametrically opposed holes 215. Indeed, in the Huang device, it is one end of the handle 10 that

is provided with the camming surfaces and this is a further distinction with the claimed invention.

The cited York reference does not overcome the deficiencies of the primary reference Huang. York simply illustrates a speed brace having a handle identified by the number 4 that extends transversely of a long straight rod 1 with the long straight rod 1 being connected to a socket by a universal joint type connection that provides for freedom of movement of the rod relative to the socket about two axes at right angles to one another. York clearly shows the use of a universal joint that provides two freedom of degrees of movement about axes that extend at right angles to one another. If such a connection was taken and used with what is taught by the Huang patent, the tool would be unstable because of the two freedoms of degree of movement.

In addition, York shows the pivotal connection of the handle which consists of rod 1 and the other member identified by the numeral 4 as being directly with the socket 9 and at one end of that socket. Thus, if the teaching of York is combined with the teaching of Huang, it would follow that the articulated joint that provides for movement along two orthogonal axes would need to be coupled to the socket drive 20. However, this is clearly not possible because the pivot pin 30 is not available for this purpose.

Moreover, even if the teachings of Huang and York are combined, there is no suggestion of how the handle shown in York may be attached to the handle of the tool disclosed in Huang. Clearly, York suggests attaching the handle directly to the socket 9. It is not possible to take the arrangement of York and attach the handle to the socket because the pin 30 is concealed. This further confirms that the combination of Huang and York does not lead to the claimed invention.

In summary, Huang by itself does not disclose or suggest the claimed invention. York by itself does not disclose or suggest the claimed invention. Huang and York cannot be combined

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in any operable fashion to lead to the claimed invention without completely ignoring the specific teachings of both references and without the improper use of hindsight. As a result, applicant respectfully requests the withdrawal of the prior art rejections.

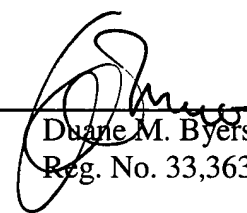
In view of the foregoing amendments and remarks, applicant submits that this case is in condition for allowance. A notice to that effect is earnestly solicited.

If the examiner has any questions concerning this case, the undersigned may be contacted at 703-816-4009.

Respectfully submitted,

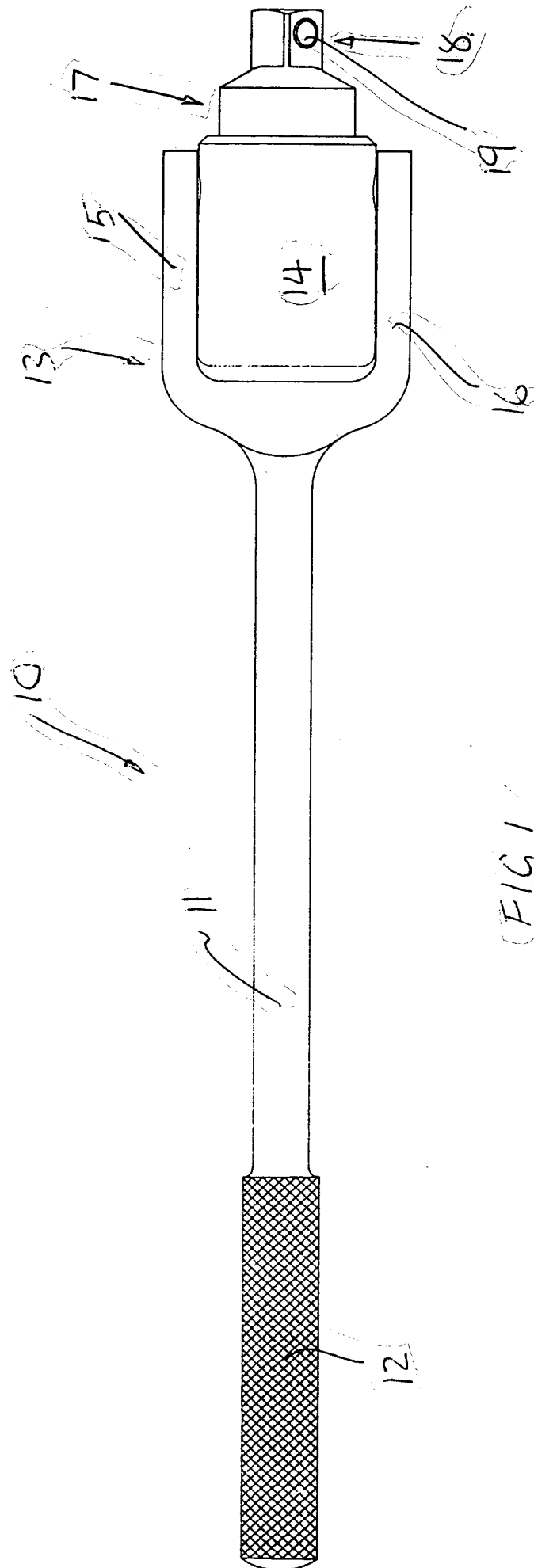
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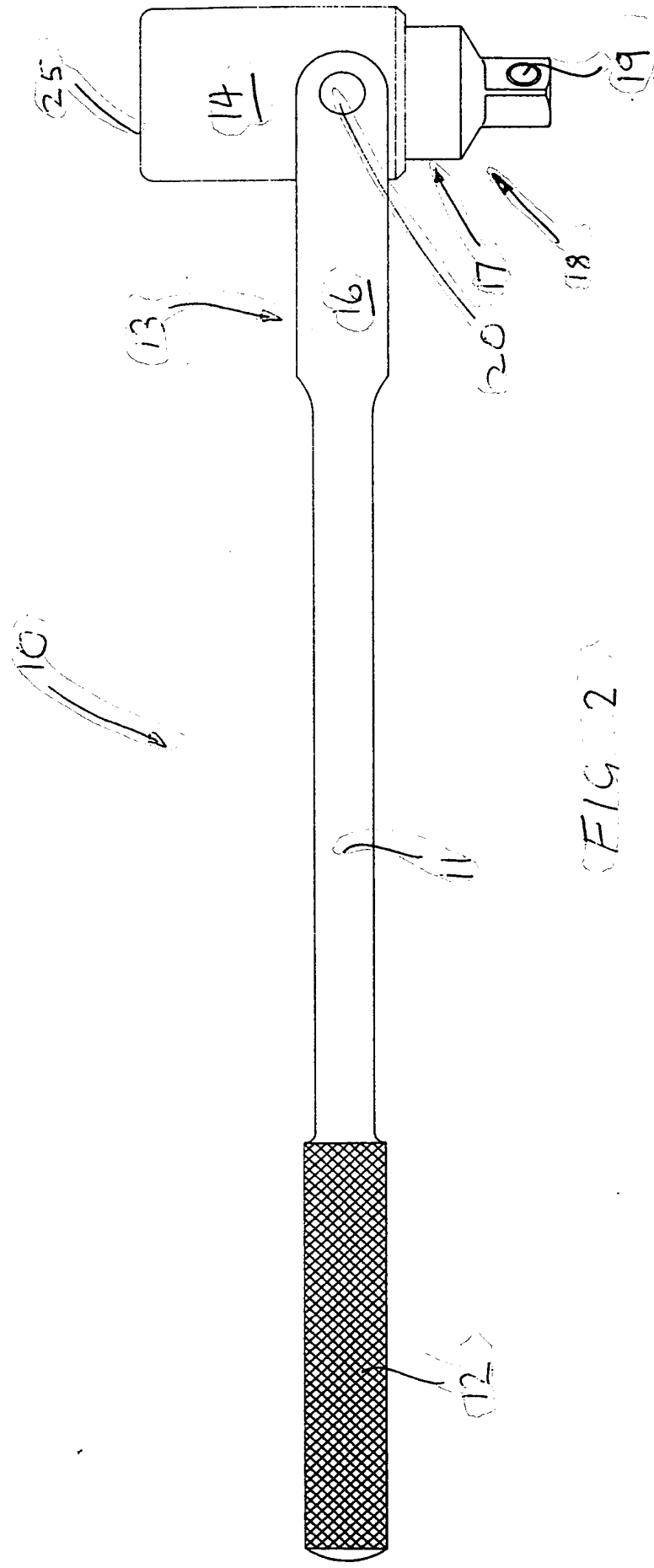
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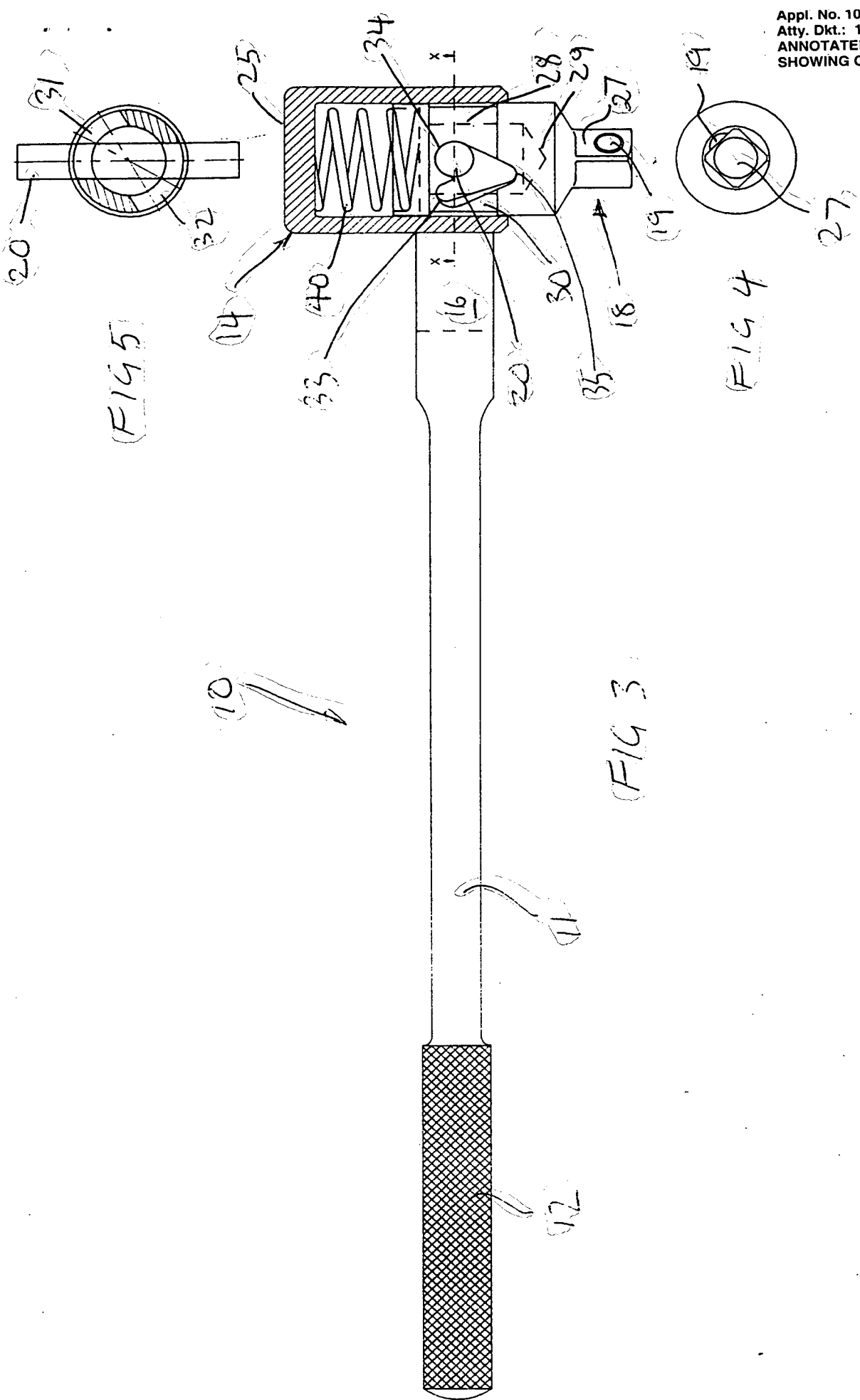
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DMB:lfo
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100





SECTION X-X



Technical drawing of a mechanical part, likely a pulley or gear, showing a cross-section with a central hole and a surrounding flange. The drawing is labeled '17' and '20'.

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